UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,450	06/21/2001	Shi-Chang Wooh	MIT-117J	5772

7590 11/16/2004

Iandiorio & Teska
260 Bear Hill Road
Waltham, MA 02451-1018

EXAMINER
HORTON, YVONNE MICHELE

ART UNIT	PAPER NUMBER
3635	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/886,450	WOOH ET AL.	
	Examiner	Art Unit	
	Yvonne M. Horton	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/18/04 has been entered.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: There is no support in the specification for a support "member" nor is there support in the specification for the enclosure cells being "statically" suspended.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3,5,9,10,12,14-16 and 18 stand rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #5,634,528 to WATTS et al. WATTS et al. discloses a

building construction including a support structure (63, 63'), a support member (84), at least one enclosure cell (80), and at least one tension member (83); wherein the tension member (83) statically suspends the enclosure (80) and is mounted to the support beam (84), column 4, lines 26-31. The applicant is reminded that *statically* is defined by Webster's II New Riverside University Dictionary, 1994 as *having no motion; marked by absence or motion or progress.* Although the enclosure cells of WATTS et al., upon imposing of forces, are capable of vertical and horizontal movement, at rest, the enclosure cells are "statically" suspended. In reference to claims 2 and 3, WATTS et al. discloses a support structure in the form of at least two columns (63, 63'). Regarding claim 5, the support member (84) is a linear beam, see figure 2 and 4. In reference to claims 9 and 10, the support member (84) also includes a number of tension members in the form of cable elements (83) that are used to suspend the enclosure cell (80). Regarding claim 12, the enclosure cell (80) includes a wall (W), see the marked attachment, and a floor, column 4, lines 47-51.

In reference to claim 14, WATTS et al. stands as disclosing the method of using tension support members including the steps of providing a support structure (63, 63'); installing a support member (84); providing at least one enclosure cell (80); and suspending the enclosure cell (80) with a tension member (83) from the support beam (84), column 4, lines 26-31. Regarding claim 15, WATTS et al. further discloses suspending several enclosures (80) from the support beam (84), see figures 2-5 wherein one enclosure cell (80) disposed to the left of the figure is suspended below another enclosure cell (80) disposed to the right of the figure. Also, Figure 2 shows

enclosure cells (80) on above the other on the left of the figure and enclosure cells (80), on the right of the figure, wherein, of the two enclosure cells 980) on the right, one is disposed below the other. In reference to claim 16, the support structure (63, 63') includes at least two columns. Regarding claim 18, the support member (84) is a linear beam, see figure 2 and 4.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 7 and 17 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over US Patent #5,634,528 to WATTS et al. As detailed above, WATTS et al. discloses the basic claimed structure and method except for there explicitly being a plurality of linear support beams. Although WATTS et al. only appears to show one linear support beam (84), it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the structure with additional support beams, since the mere duplication of essential parts of an invention involves only routine skill in the art. For instance, if the weight of the enclosures being suspended was significant, one skilled in the art might use an additional support beam to aid in properly maintaining the enclosure upon the beam without causing any damage to the support beam itself. The enclosure of WATTS et al. is used in the maintenance of bridges. Although WATTS et al. shows what appears to be as a single support member, it would have been obvious to one having ordinary skill in the art to replace the single support member with a

plurality of adjacent support members disposed there along to facilitate placement of a plurality of enclosure cells; thereby, lessoning the amount of time requires to perform the maintenance. A plurality of enclosure cells would provide access to a number of workers to perform the maintenance simultaneously, as opposed to one worker at a time.

Claims 11 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #5,634,528 to WATTS et al. In view of US Patent #6,170,105 to DOYLE et al. As detailed above, WATTS et al. discloses the basic claimed structure except for the material of the support beam specifically including a fiber reinforced plastic material. WATTS et al. is silent with regards to the material of his support beams, but the figures appear to show some type of cementitious or flowable material. It is commonly or very well known in the art to reinforce cementitious or flowable type materials with plastic fibers. DOYLE et al. teaches that it is known in the art to form a building construction support beam member (10) that includes a mat of fiber reinforced plastic material (24), column 2, lines 40-67. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the structural member of WATTS et al. with a fiber reinforced plastic material, a taught by DOYLE et al., in order to contribute to the structural strength and integrity of the support member itself. The use of fiber-reinforced plastic for concrete structures provides excellent corrosion resistance as opposed to the use of steel reinforced concrete, and significantly reduces maintenance, reconstruction or replacement costs.

Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #5,634,528 to WATTS et al. WATTS et al. discloses a structure including a support structure (63, 63'), a support member (84), first and second enclosure cells (80), se at least figure 3, and at least one tension member (83); wherein the tension member (83) statically suspends the enclosure (80) and is mounted to the support beam (84), column 4, lines 26-31. The enclosure cells (80) of WATTS et al. constitute different levels; wherein, the enclosure cell (80) to the left of the figure is at one level and the enclosure cell to the right of the figure is another level. WATTS et al. discloses the basic claimed structure except for explicitly being a building. Although the structure of WATTS et al. is a bridge, the manner in which a device is employed does not differentiate a prior art device from satisfying the claimed structural elements of the invention.

Allowable Subject Matter

Claims 6,8,19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 9/22/04 have been fully considered but they are not persuasive.

Regarding the applicant's argument that the structure of WATTS et al. is not "static" because it is allowed to move vertically and horizontally, as noted above, the applicant is once again reminded that *statically* is defined by Webster's II New Riverside University Dictionary, 1994 as *having no motion; marked by absence or motion or progress.* Although the enclosure cells of WATTS et al., upon imposing of forces, are capable of vertical and horizontal movement, at rest, the enclosure cells are "statically" suspended. There is nothing in WATTS et al. to indicate that the structure continually moves. Hence, at some point the enclosure is at rest and it is this moment in time that the enclosure cell is considered as being "statically" suspended – without motion.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne M. Horton whose telephone number is (703) 308-1909. The examiner can normally be reached on 6:30 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on (703) 308-0839. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YMH

Yvonne M. Horton
Examiner
Art Unit 3635

Carl D. Friedman
Supervisory Patent Examiner
Group 3600